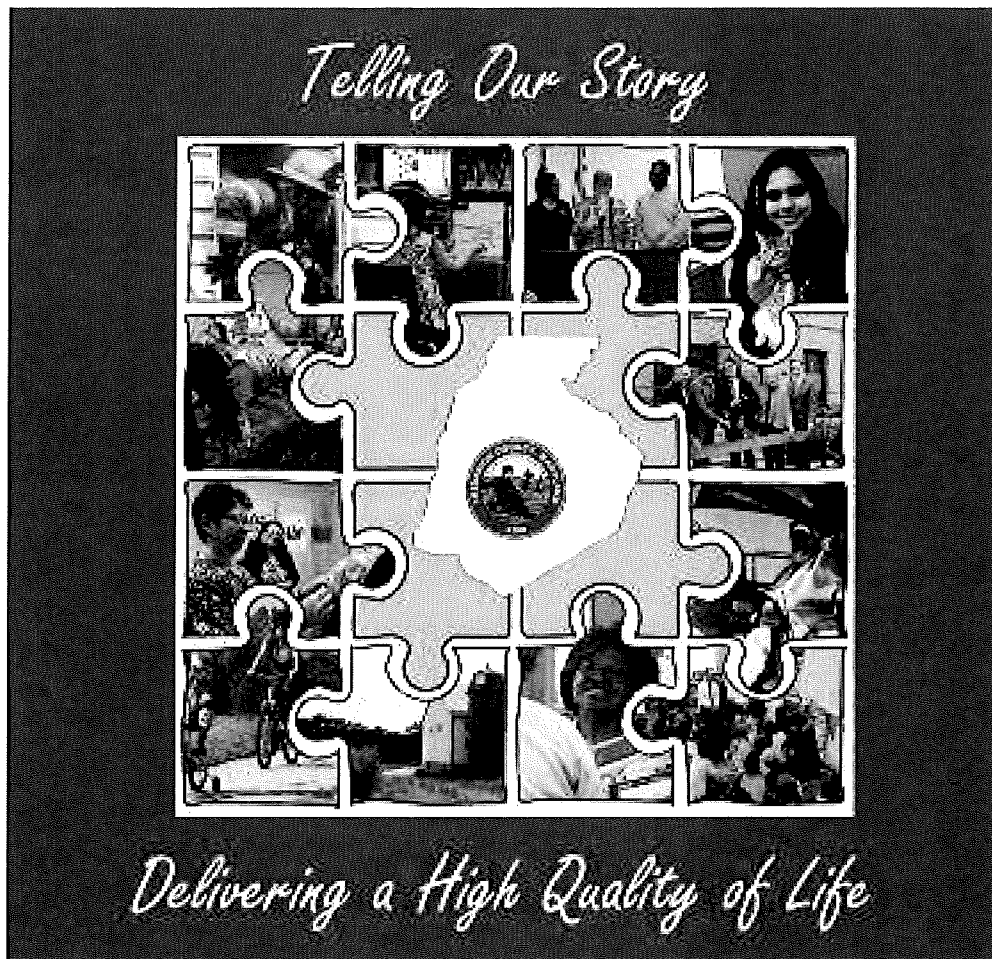


Fiscal 2020 Adopted Operating and Capital Budgets



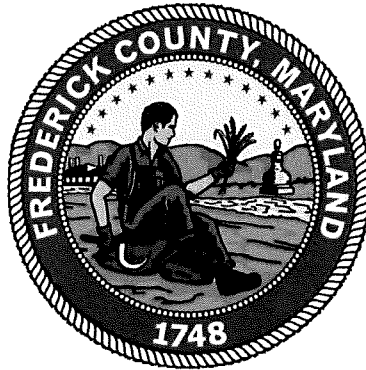
**Jan H. Gardner,
Frederick County Executive**

Frederick County Government

Frederick County, Maryland

Fiscal Year 2020 Adopted Budget

July 1, 2019 – June 30, 2020



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Capital Improvement Program

Water & Sewer

The Frederick County Water and Sewer CIP are funded from a self-supporting enterprise fund. The enterprise obtains its revenue from fees assessed to customers for the provision of water and sewer service. The enterprise fund receives no funding contribution from the County's General Fund.

Funding for water and sewer capacity development is typically obtained through the issuance of General Obligation bonds for which the enterprise has assumed the full burden of payment. The debt service on these bonds is paid for through construction and user fees for projects that benefit existing customers. Capacity development fees, assessed by the enterprise, are based on the estimated cost of the projects approved in the CIP that are programmed for funding by the enterprise fund. A portion of the user rate funds non-growth related projects that benefit existing customers. Since the retirement of debt associated with water and sewer CIP projects is the responsibility of the enterprise, the borrowing of these bonds is not included in the General Fund portion of the County's debt affordability model.

The enterprise's six-year CIP is intended to keep pace with growth by providing the primary elements of the public water supply and sewage disposal systems. Such projects must be consistent with the County's Comprehensive Plan. The CIP also incorporates projects necessary to maintain compliance with the Federal Safe Drinking Water Act and the Clean Water Act.

The following table shows the percentage of each project funded from Water & Sewer Capacity Fees, Water & Sewer User Rates, and 3rd party funds

	% Project Cost Recovered By		
	<u>Capacity Fees</u>	<u>User Fees</u>	<u>3rd Party Funds</u>
Ballenger-McKinney WWTP Sludge Management	33%	50%	17%
Inflow & Infiltration 1 201A-S		100%	
Monrovia Water Storage Tank 2			100%
Lewistown Wastewater Treatment Plant Improvements		60%	40%
Lewistown Wastewater Collection System		60%	40%
Adamstown Gravity lines	100%		
White Rock Water line Replacement		100%	
Truck Scale at New Design Water Treatment Plant		100%	
Raw Water Intake and Pump Station Improvements		100%	
SHA Utility Relocations		100%	
Holly Hills SPS Replacement		100%	
Clay Street Waterline Replacement		100%	
Maintenance Building Expansion/Relocation		100%	
Facility Residuals Disposal		100%	
Concrete Water Tank Recoating		100%	
White Rock Wtr Line Rep		100%	
Cambridge Farms WTP UV		100%	
Inflow/Infiltr Study Ph3 201C-S		100%	
New Market West WTP Bypass		100%	
All Systemics		100%	

FY2020-2025 CAPITAL IMPROVEMENT PROGRAM

APPROVED

WATER AND SEWER

Project	6-Year	Total Project	Prior	2020	2021	2022	2023	2024	2025	Costs After
Capacity										
Ballenger-McKinney WWTP Sludge Management	66,723,300	66,723,300	0	0	0	0	0	5,586,000	61,137,300	0
Sewerage Problem Area Remediation	0	879,251	0	0	0	0	0	0	0	879,251
Inflow & Infiltration 1 201A-S	500,000	500,000	0	250,000	250,000	0	0	0	0	0
Lingamore Interceptor 1 - Lower Reach	0	1,505,200	0	0	0	0	0	0	0	1,505,200
Lingamore Interceptor 2 - Upper Reach	0	1,062,800	0	0	0	0	0	0	0	1,062,800
Water Storage Tank 2	2,865,000	3,178,000	313,000	2,865,000	0	0	0	0	0	0
Developer-Funded Infrastructure	120,000,000	170,000,000	50,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	0
Lewistown Wastewater Treatment Plant	660,000	3,236,000	2,576,000	660,000	0	0	0	0	0	0
Lewistown Wastewater Collection System	535,000	1,520,000	985,000	535,000	0	0	0	0	0	0
Adamstown Gravity Sewer Lines, Phase 1	3,215,600	3,215,600	0	3,215,600	0	0	0	0	0	0
Total: Capacity	194,498,900	251,820,151	53,874,000	27,525,600	20,250,000	20,000,000	20,000,000	25,586,000	81,137,300	3,447,251
Maintenance										
White Rock WWTP Replacement	400,000	2,606,800	2,206,800	400,000	0	0	0	0	0	0
Truck Scale at New Design Water	637,500	637,500	0	254,000	383,500	0	0	0	0	0
Raw Water Intake and Pump Station	2,002,000	3,220,000	1,218,000	2,002,000	0	0	0	0	0	0
SHA Utility Relocations	250,000	1,427,261	1,177,261	250,000	0	0	0	0	0	0
Holly Hills SPS Replacement	505,000	505,000	0	505,000	0	0	0	0	0	0
Clay Street Waterline Replacement	585,000	900,000	315,000	585,000	0	0	0	0	0	0
Maintenance Building Expansion/Relocation	4,005,000	4,155,000	150,000	1,330,000	2,675,000	0	0	0	0	0
Facility Residuals Disposal	690,000	690,000	0	0	90,000	600,000	0	0	0	0
Concrete Water Tank Recoating	1,740,000	2,145,000	405,000	380,000	480,000	0	390,000	490,000	0	0
White Rock Wtr Line Rep	900,000	1,793,000	893,000	900,000	0	0	0	0	0	0
Cambridge Farms WTP UV	750,000	868,000	118,000	750,000	0	0	0	0	0	0
Inflow/Infiltr Study Ph3 201C-S	200,000	475,725	275,725	200,000	0	0	0	0	0	0
New Market West WTP Bypass	200,000	200,000	0	200,000	0	0	0	0	0	0
DUSWM Maintenance Systemics - Ballenger Wastewater	2,224,000	2,309,000	460,000	364,000	368,000	370,000	372,000	375,000	375,000	0
DUSWM Maintenance Systemics - Small Systems Wastewater	3,085,000	3,135,000	435,000	1,160,000	385,000	385,000	385,000	385,000	385,000	0
DUSWM Maintenance Systemics - Water	2,561,000	3,099,000	940,000	585,000	385,000	385,000	402,000	402,000	402,000	0
Total: Maintenance	20,734,500	28,166,286	8,593,786	9,865,000	4,766,500	1,740,000	1,549,000	1,652,000	1,162,000	0
Total Expense	215,233,400	279,986,437	62,467,786	37,390,600	25,016,500	21,740,000	21,549,000	27,238,000	82,299,300	3,447,251

FY2020-2025 CAPITAL IMPROVEMENT PROGRAM

APPROVED

WATER AND SEWER

	6-Year	Total Project	Prior	2020	2021	2022	2023	2024	2025	Costs After
FUNDING										
Enterprise Fee & Bonds	78,895,439	92,618,212	11,804,786	12,395,600	5,016,500	1,740,000	1,549,000	6,288,380	51,905,959	1,917,987
Grants	1,945,000	1,945,000	0	1,945,000	0	0	0	0	0	0
Other	134,392,961	186,585,225	50,663,000	23,050,000	20,000,000	20,000,000	20,000,000	20,949,620	30,393,341	1,529,264
Total Funding Source	215,233,400	281,148,437	62,467,786	37,390,600	25,016,500	21,740,000	21,549,000	27,238,000	82,299,300	3,447,251



Capital Project Summary

Capital Project Number: WS1001

Activity #:

Capital Project Title: Ballenger-McKinney WWTP Sludge Management

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 12/31/2026

Asset Type: Capacity

Year Identified: 2010

Capital Project Status: Active

Capital Project Description:

This project was formally known as "McKinney WWTP Phase 1" and includes the design and construction of the first phase (15 MGD) sludge management improvements in accordance with the Ballenger Creek/McKinney WWTP Facility Plan dated March 2006. Per the Facility Plan, improvements are required when the average daily flow reaches 10 MGD. The City of Frederick's portion is assumed to be 17% of the project cost.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	5,933,550						5,586,000	347,550	
Construction - County Funded	56,080,500							56,080,500	
Inspectors - County	1,643,250							1,643,250	
Overhead	388,500							388,500	
Capitalized Interest Expense	2,677,500							2,677,500	
Total Cost:	66,723,300						5,586,000	61,137,300	

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Cap Contr - Municipal	11,342,961						949,620	10,393,341	
Trans from W/S Cash Fund	2,677,500							2,677,500	
Enterprise Fund Bonds	52,702,839						4,636,380	48,066,459	
Total Cost:	66,723,300						5,586,000	61,137,300	



Capital Project Summary

Capital Project Number: WS1002

Activity #:

Capital Project Title: Sewerage Problem Area Remediation

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2010

Capital Project Status: Active

Capital Project Description:

This project serves as a placeholder to remediate sewage problem areas (failing septic systems) as needed.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Land	62,351								62,351
Architect/Engineering	112,350								112,350
Construction	605,850								605,850
Inspectors - County	29,400								29,400
Overhead	29,400								29,400
Capitalized Interest Expense	39,900								39,900
Total Cost:	879,251								879,251

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	39,900								39,900
Enterprise Fund Bonds	839,351								839,351
Total Cost:	879,251								879,251



Capital Project Summary

Capital Project Number: WS1009

Activity #: 81002.3999.01

Capital Project Title: Inflow & Infiltration 1 201A-S

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2010

Capital Project Status: In Progress

Capital Project Description:

Project includes efforts to identify I/I sources and make sewer system repairs in the Ballenger Creek, Monocacy, and Fountaindale sewer basins. Field flow and TV will be collected by DUSWM Operations or a contractor. The data will be interpreted by DUSWM staff or a consultant engineer and recommendations for necessary corrections shall be made. The repairs will be made by Operations staff or a contractor.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	150,000			150,000					
Construction - County Funded	100,000			100,000					
Overhead	250,000		250,000						
Total Cost:	500,000		250,000	250,000					

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	500,000		250,000	250,000					
Total Cost:	500,000		250,000	250,000					



Capital Project Summary

Capital Project Number: WS1012

Activity #:

Capital Project Title: Linganore Interceptor 1 - Lower Reach

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2010

Capital Project Status: Active

Capital Project Description:

Existing pipe unable to meet projected build out peak flows without surcharging. Replacement eliminates pipe segments with sags, reverse slopes, and inflow & infiltration. Projected need between year 2015 and 2025. Information is pursuant to the March 2004 Interceptor Sewer Capacity Analysis prepared by Whitman, Requardt and Associates.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	216,200								216,200
Construction - County Funded	1,173,000								1,173,000
Inspectors - County	38,000								38,000
Overhead	38,000								38,000
Capitalized Interest Expense	40,000								40,000
Total Cost:	1,505,200								1,505,200

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Cap Contr - Developer	831,164								831,164
Trans from W/S Cash Fund	40,000								40,000
Enterprise Fund Bonds	634,036								634,036
Total Cost:	1,505,200								1,505,200



Capital Project Summary

Capital Project Number: WS1013

Activity #:

Capital Project Title: Linganore Interceptor 2 - Upper Reach

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2010

Capital Project Status: Active

Capital Project Description:

Interceptor is unable to meet 2025 flows without surcharging. Replacement eliminates existing sewers with reverse slopes and sags, with the new pipe sized for build out flows. Information is pursuant to the March 2004 Interceptor Sewer Capacity Analysis prepared by Whitman, Requardt and Associates.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	147,500								147,500
Construction - County Funded	778,600								778,600
Inspectors - County	42,850								42,850
Overhead	42,850								42,850
Capitalized Interest Expense	51,000								51,000
Total Cost:	1,062,800								1,062,800

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Cap Contr - Developer	698,100								698,100
Trans from W/S Cash Fund	51,000								51,000
Enterprise Fund Bonds	313,700								313,700
Total Cost:	1,062,800								1,062,800



Capital Project Summary

Capital Project Number: WS1023

Activity #: 11284.1105.01

Capital Project Title: Water Storage Tank 2

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2015

Capital Project Status: Active

Capital Project Description:

Developer Funded project for design and construction of a new 1.0 MG elevated water storage tank located in the vicinity of Ed McClain and Green Valley Roads (Monrovia). Memorandum of Understanding between developer(s) and Frederick County has been executed.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	253,000	253,000							
Construction - County Funded	2,725,000		2,725,000						
Inspectors - County	140,000		140,000						
Overhead	60,000	60,000							
Total Cost:	3,178,000	313,000	2,865,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Cap Contr - Developer	3,178,000	313,000	2,865,000						
Total Cost:	3,178,000	313,000	2,865,000						



Capital Project Summary

Capital Project Number: WS1028

Capital Project Title: Developer-Funded Infrastructure

Asset Category: Water & Sewer

Asset Type: Capacity

Capital Project Status: Active

Activity #: 81001.3999.01

Region: Countywide

Est Completion Date: 6/30/2024

Year Identified: 2016

Capital Project Description:

Project contains all developer-funded water and sewer projects constructed under Public Works Agreements (PWAs) and Public Improvement Agreements (PIAs) and includes all sub-projects necessary to track different information. The amounts budgeted are estimates only.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Construction - Developer Funde	170,000,000	50,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	
Total Cost:	170,000,000	50,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Cap Contr - Developer	170,000,000	50,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	
Total Cost:	170,000,000	50,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	



Capital Project Summary

Capital Project Number: WS1032

Activity #: 21182.1211.01

Capital Project Title: Lewistown Wastewater Treatment Plant Improvements

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2017

Capital Project Status: In Progress

Capital Project Description:

The DUSWM currently maintains a sand mound system which serves the Elementary School and Fire Station. This project includes study, design, and construction services required to replace the existing system with a more conventional package treatment system. The engineering study included in this project will identify detailed sizing and other design parameters.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	416,500	301,500	115,000						
Construction - County Funded	2,447,000	2,115,000	332,000						
Inspectors - County	104,500	104,500							
Overhead	268,000	55,000	213,000						
Total Cost:	3,236,000	2,576,000	660,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
State Grants - Capital	960,000		960,000						
Trans from RR&R	2,276,000	1,000,000	1,276,000						
Proceeds - Loans	0	1,576,000	-1,576,000						
Total Cost:	3,236,000	2,576,000	660,000						



Capital Project Summary

Capital Project Number: WS1033

Activity #: 21183.1211.01

Capital Project Title: Lewistown Wastewater Collection System

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Capacity

Year Identified: 2017

Capital Project Status: In Progress

Capital Project Description:

This project includes the design and construction of a low pressure sewer/grinder pump collection system to serve a yet to be defined service area in Lewistown. Funding is expected from a MDE grant and a benefit assessment (BA) may be levied against each property to be served. An amendment to the County Water and Sewerage Plan has been completed to create this service area.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Land	15,000		15,000						
Architect/Engineering	196,000	120,000	76,000						
Construction - County Funded	1,029,000	735,000	294,000						
Inspectors - County	85,000	85,000							
Overhead	195,000	45,000	150,000						
Total Cost:	1,520,000	985,000	535,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
State Grants - Capital	985,000		985,000						
Cap Contr - Property Owners	535,000	350,000	185,000						
Proceeds - Loans	0	635,000	-635,000						
Total Cost:	1,520,000	985,000	535,000						



Capital Project Summary

Capital Project Number: WS1055

Activity #: 21341.1236.01

Capital Project Title: Adamstown Gravity Sewer Lines,
Phase 1

Region: Adamstown

Asset Category: Water & Sewer

Est Completion Date: 2/28/2021

Asset Type: Capacity

Year Identified: 2020

Capital Project Status: Active

Capital Project Description:

Project includes design and construction of approximately 5,100 LF of 8-inch gravity sewer, manholes, service connections, and surface restoration. Alignment generally runs along the south side of the railroad R/W from Doubs Road SPS, across Mountville Road, to and along 500 feet of Adamstown Road. Budget also includes cost of easement document preparation and acquisition. Contract No. 147C-S.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Land	222,000		222,000						
Architect/Engineering	379,500		379,500						
Construction - County Funded	2,300,000		2,300,000						
Inspectors - County	102,000		102,000						
Project Management	44,500		44,500						
Overhead	167,600		167,600						
Total Cost:	3,215,600		3,215,600						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S System Develop	3,215,600		3,215,600						
Total Cost:	3,215,600		3,215,600						



Capital Project Summary

Capital Project Number: WS1019

Activity #: 21165.1210.01

Capital Project Title: White Rock WWTP Replacement

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified: 2002

Capital Project Status: In Progress

Capital Project Description:

Study, design, and construction of a replacement WWTP for White Rock.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	297,800	297,800							
Construction - County Funded	1,715,500	1,315,500	400,000						
Inspectors - County	52,000	52,000							
Overhead	401,500	401,500							
Capitalized Interest Expense	140,000	140,000							
Total Cost:	2,606,800	2,206,800	400,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	569,773	549,773	20,000						
Enterprise Fund Bonds	2,037,027	1,657,027	380,000						
Total Cost:	2,606,800	2,206,800	400,000						



Capital Project Summary

Capital Project Number: WS1035

Activity #: 11338.1105.01

Capital Project Title: Truck Scale at New Design Water Treatment Plant

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified: 2017

Capital Project Status: Active

Capital Project Description:

Project includes design and construction services required to install a truck scale to weigh dried residuals that are produced by the water treatment process and then hauled to an approved disposal site.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	100,000		100,000						
Construction - County Funded	381,500			381,500					
Inspectors - County	75,000		75,000						
Overhead	50,000		50,000						
Capitalized Interest Expense	31,000		29,000	2,000					
Total Cost:	637,500		254,000	383,500					

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	31,000		29,000	2,000					
Enterprise Fund Bonds	606,500		225,000	381,500					
Total Cost:	637,500		254,000	383,500					



Capital Project Summary

Capital Project Number: WS1037

Activity #: 11208.1105.01

Capital Project Title: Raw Water Intake and Pump Station Improvements

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified: 2018

Capital Project Status: In Progress

Capital Project Description:

A raw water pump station conveys untreated water from the Potomac River intake structure to the New Design Water Treatment Plant for treatment. There have been issues with debris/sediment and ice accumulation at the intake channel and on the screens so Hazen was retained to investigate and provide recommendations. In addition, Hazen investigated the existing sluice gate hydraulic operators to determine if they should be replaced or repaired. Hazen's study titled "New Design Road Water Treatment Plant Water Intake Structure Modifications Options Analysis" (October 12, 2016) provided the following recommendations that define the design and construction scope for this project:

1. Installation of a full channel aeration grid to eliminate accumulation of sediment and ice in the intake channel.
2. Installation of a small diffuser grid behind the bar racks and a heating system to deice the intake screens.
3. Replacement of five sluice gate hydraulic operators and one hydraulic power unit.
4. Design shall also address cleaning the screens and channel and a pumping plan to maintain plant operation during construction.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	257,000	165,000	92,000						
Construction - County Funded	2,525,000	825,000	1,700,000						
Inspectors - County	195,000	85,000	110,000						
Overhead	185,000	85,000	100,000						
Capitalized Interest Expense	58,000	58,000							
Total Cost:	3,220,000	1,218,000	2,002,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	58,000	58,000							
Trans from RR&R	306,827	80,000	226,827						
Enterprise Fund Bonds	2,855,173	1,080,000	1,775,173						
Total Cost:	3,220,000	1,218,000	2,002,000						



Capital Project Summary

Capital Project Number: WS1040

Activity #: 81005.3999.01

Capital Project Title: SHA Utility Relocations

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified: 2018

Capital Project Status: Active

Capital Project Description:

Project purpose is to provide funds as needed to fund County water and sewer relocations required by State Highway Administration (SHA) road and bridge projects. The County is typically responsible for these relocation costs when the SHA has prior rights within their right-of-way. As SHA projects are identified that impact the existing water/sewer system, separate utility relocation projects will be created.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	75,000	75,000							
Construction - County Funded	1,027,261	777,261	250,000						
Inspectors - County	75,000	75,000							
Overhead	250,000	250,000							
Total Cost:	1,427,261	1,177,261	250,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	1,427,261	1,177,261	250,000						
Total Cost:	1,427,261	1,177,261	250,000						



Capital Project Summary

Capital Project Number: WS1045

Activity #: 21339.1206.01

Capital Project Title: Holly Hills SPS Replacement

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 11/27/2020

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: Active

Capital Project Description:

The project includes design and construction services required to replace the existing sewage pump station with a new wet well mounted or submersible station, controls, and security fencing.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	75,000		75,000						
Construction - County Funded	400,000		400,000						
Inspectors - County	20,000		20,000						
Project Management	10,000		10,000						
Total Cost:	505,000		505,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	35,000		35,000						
Enterprise Fund Bonds	470,000		470,000						
Total Cost:	505,000		505,000						



Capital Project Summary

Capital Project Number: WS1046

Activity #: 11278.1109.01

Capital Project Title: Clay Street Waterline Replacement

Region:

Asset Category: Water & Sewer

Est Completion Date: 12/20/2019

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: In Progress

Capital Project Description:

Project includes design and construction services required to replace the existing water main between Ballenger Creek Pike and Bank Street in Point of Rocks. New 8-inch water main is approximately 1,100 LF in length and new service laterals are included.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Land	0	5,000	-5,000						
Architect/Engineering	68,000	50,000	18,000						
Construction - County Funded	653,000	220,000	433,000						
Inspectors - County	28,000	25,000	3,000						
Project Management	0	15,000	-15,000						
Overhead	103,000		103,000						
Capitalized Interest Expense	48,000		48,000						
Total Cost:	900,000	315,000	585,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	48,000	31,500	16,500						
Enterprise Fund Bonds	852,000	283,500	568,500						
Total Cost:	900,000	315,000	585,000						



Capital Project Summary

Capital Project Number: WS1047

Activity #: 21281.1206.01

Capital Project Title: Maintenance Building
Expansion/Relocation

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 12/31/2021

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: In Progress

Capital Project Description:

This project involves preparation of a Facility Plan to identify and analyze possible options to expand or relocate the DUSWM Maintenance Building/Operation currently located on Marcies Choice Lane. Project includes funds to execute approved options which could include purchase and development of a new site, redevelopment of the existing site, renovation of the existing building, or a combination of these options.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Land	1,000,000		1,000,000						
Architect/Engineering	500,000	125,000	300,000	75,000					
Construction - County Funded	2,500,000			2,500,000					
Inspectors - County	75,000			75,000					
Project Management	80,000	25,000	30,000	25,000					
Total Cost:	4,155,000	150,000	1,330,000	2,675,000					

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	550,500	150,000	133,000	267,500					
Enterprise Fund Bonds	3,604,500		1,197,000	2,407,500					
Total Cost:	4,155,000	150,000	1,330,000	2,675,000					



Capital Project Summary

Capital Project Number: WS1049

Activity #:

Capital Project Title: Facility Residuals Disposal

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 11/25/2022

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: Active

Capital Project Description:

Project includes the study, design, and construction services required to provide a more efficient method of disposing of waste collected by the vac-truck. Study will evaluate various options which could include modification to existing headworks at the Ballenger-McKinney WWTP or construction of a separate facility.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	175,000			75,000	100,000				
Construction - County Funded	400,000				400,000				
Inspectors - County	25,000				25,000				
Project Management	30,000			10,000	20,000				
Overhead	30,000			5,000	25,000				
Capitalized Interest Expense	30,000				30,000				
Total Cost:	690,000			90,000	600,000				

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	120,000			90,000	30,000				
Enterprise Fund Bonds	570,000				570,000				
Total Cost:	690,000			90,000	600,000				



Capital Project Summary

Capital Project Number: WS1050

Activity #: 81018.3999.01

Capital Project Title: Concrete Water Tank Recoating

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 10/3/2025

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: Active

Capital Project Description:

The County currently has five concrete water storage tanks of various ages; two at New Design WTP, Jordan, East County, and Hannover. This project involves the repair and cementitious painting of the exterior wall/roof surfaces. Each tank will be scheduled for this work based upon its condition as recommended by our tank inspection program.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	275,000	75,000	50,000	50,000		50,000	50,000		
Construction - County Funded	1,450,000	250,000	250,000	350,000		250,000	350,000		
Inspectors - County	185,000	35,000	35,000	35,000		40,000	40,000		
Project Management	50,000	10,000	10,000	10,000		10,000	10,000		
Overhead	185,000	35,000	35,000	35,000		40,000	40,000		
Total Cost:	2,145,000	405,000	380,000	480,000		390,000	490,000		

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	2,145,000	405,000	380,000	480,000		390,000	490,000		
Total Cost:	2,145,000	405,000	380,000	480,000		390,000	490,000		



Capital Project Summary

Capital Project Number: WS1051

Activity #: 11111.1131.01

Capital Project Title: White Rock Wtr Line Rep

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified:

Capital Project Status: In Progress

Capital Project Description:

Design and construction of replacement waterlines in White Rock subdivision shall be coordinated with the DPW roadway project. The project includes installation of new water main, water house connections, and may include fire hydrants.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	109,900	173,900	-64,000						
Construction - County Funded	1,224,000	654,000	570,000						
Inspectors - County	40,000	40,000							
Overhead	201,000	18,000	183,000						
Capitalized Interest Expense	218,100		218,100						
Capital - Furniture / Equipmen	0	7,100	-7,100						
Total Cost:	1,793,000	893,000	900,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	915,000	465,000	450,000						
Enterprise Fund Bonds	878,000	428,000	450,000						
Total Cost:	1,793,000	893,000	900,000						



Capital Project Summary

Capital Project Number: WS1052

Activity #: 11113.1142.01

Capital Project Title: Cambridge Farms WTP UV

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified:

Capital Project Status: In Progress

Capital Project Description:

Project includes the design and construction of an expansion of the existing Cambridge Farms Water Treatment Plant, relocation of the generator, piping modifications, new chemical storage room, UV disinfection, and filtration systems.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	102,000	27,000	75,000						
Construction - County Funded	675,000	75,000	600,000						
Inspectors - County	35,000	10,000	25,000						
Overhead	56,000	6,000	50,000						
Total Cost:	868,000	118,000	750,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	868,000	118,000	750,000						
Total Cost:	868,000	118,000	750,000						



Capital Project Summary

Capital Project Number: WS1053

Activity #: 81004.3999.01

Capital Project Title: Inflow/Infiltr Study Ph3 201C-S

Region:

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified:

Capital Project Status: In Progress

Capital Project Description:

Project includes efforts to identify I/I sources and make sewer system repairs in the Jefferson and White Rock sewer basins. Field flow and TV will be collected by DUSWM Operations or a contractor. The data will be interpreted by DUSWM staff or a consultant engineer and recommendations for necessary corrections shall be made. The repairs will be made by Operations staff or a contractor.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	52,423	52,423							
Construction - County Funded	150,000		150,000						
Inspectors - County	207,302	207,302							
Overhead	66,000	16,000	50,000						
Total Cost:	475,725	275,725	200,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	53,300	33,300	20,000						
Trans from W/S System Develop	422,425	242,425	180,000						
Total Cost:	475,725	275,725	200,000						



Capital Project Summary

Capital Project Number: WS1054

Activity #: 11340.1105.01

Capital Project Title: New Market West WTP Bypass

Region: New Market

Asset Category: Water & Sewer

Est Completion Date: 10/1/2020

Asset Type: Maintenance

Year Identified: 2020

Capital Project Status: Active

Capital Project Description:

The project includes design and construction services required to install a 12" water main bypass around the New Market West Water Treatment Plant that is no longer in operation.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	42,000		42,000						
Construction - County Funded	110,000		110,000						
Inspectors - County	7,000		7,000						
Overhead	41,000		41,000						
Total Cost:	200,000		200,000						

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	200,000		200,000						
Total Cost:	200,000		200,000						



Capital Project Summary

Capital Project Number: WS1101

Activity #: 81786.3999.01

Capital Project Title: DUSWM Maintenance Systemics -
Ballenger Wastewater

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 6/27/2025

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: Active

Capital Project Description:

This project anticipates maintenance/systemic needs required for aging County wastewater systems in the Ballenger-McKinney WWTP service area: roof replacement, pavement repair/overlay/sealcoating, large HVAC replacement/upgrade, generator repair/replacement, building envelope improvements such as door and window replacements, large pump repairs/replacement, plant and pump station controls/PLC replacement/upgrades, large component treatment works piping and equipment repair/replacement, pump repair/replacement, low pressure system replacements/upgrades. For FY2020, priority is the MBR Permeate Pipe Replacement at Ballenger-McKinney WWTP.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	764,000	100,000	104,000	108,000	110,000	112,000	115,000	115,000	
Construction - County Funded	1,850,000	350,000	250,000	250,000	250,000	250,000	250,000	250,000	
Overhead	70,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	
Total Cost:	2,684,000	460,000	364,000	368,000	370,000	372,000	375,000	375,000	

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	2,684,000	460,000	364,000	368,000	370,000	372,000	375,000	375,000	
Total Cost:	2,684,000	460,000	364,000	368,000	370,000	372,000	375,000	375,000	



Capital Project Summary

Capital Project Number: WS1102

Activity #: 81782.3999.01

Capital Project Title: DUSWM Maintenance Systemics -
Small Systems Wastewater

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date:

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: Active

Capital Project Description:

This project anticipates maintenance/systemic needs required for aging County wastewater systems outside the Ballenger-McKinney WWTP service area. These regional systems are considered "small systems": roof replacement, pavement repair/replacement, generator repair/replacement, building envelope improvements such as door and window replacements, pump repairs/replacements, plant and pump station controls/PLC replacement/upgrades, treatment works piping and equipment repair/replacement, low pressure sewer system replacement/upgrades. For FY2020, priorities are evaluation and repairs to the Point of Rocks and Crestview WWTPs and the Knoxville low pressure sewer system.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	889,000	125,000	139,000	125,000	125,000	125,000	125,000	125,000	
Construction - County Funded	2,465,000	300,000	915,000	250,000	250,000	250,000	250,000	250,000	
Overhead	166,000	10,000	106,000	10,000	10,000	10,000	10,000	10,000	
Total Cost:	3,520,000	435,000	1,160,000	385,000	385,000	385,000	385,000	385,000	

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	3,520,000	435,000	1,160,000	385,000	385,000	385,000	385,000	385,000	
Total Cost:	3,520,000	435,000	1,160,000	385,000	385,000	385,000	385,000	385,000	



Capital Project Summary

Capital Project Number: WS1108

Activity #: 81581.3999.01

Capital Project Title: DUSWM Maintenance Systemics - Water

Region: Countywide

Asset Category: Water & Sewer

Est Completion Date: 6/27/2025

Asset Type: Maintenance

Year Identified: 2019

Capital Project Status: Active

Capital Project Description:

This project anticipates maintenance/systemic needs required for aging County water systems: roof replacement, pavement repair/overlay/sealcoating, larger HVAC replacement/upgrade, generator repair/replacement, building envelope improvements such as door and window replacements, large meter replacements, large pump repairs/replacement, plant and station controls/PLC replacement/upgrades, and water storage tank repairs. For FY 2020, priorities are East County BPS 3rd pump, Ball Road BPS pump and controls replacement; Cambridge Farms Water Storage Tank rehabilitation; East County PS PLC replacement; and initiation of the Commercial Meter replacement program.

Cash Requirement Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Architect/Engineering	1,015,000	250,000	125,000	125,000	125,000	130,000	130,000	130,000	
Construction - County Funded	2,416,000	680,000	450,000	250,000	250,000	262,000	262,000	262,000	
Overhead	70,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	
Total Cost:	3,501,000	940,000	585,000	385,000	385,000	402,000	402,000	402,000	

Funding Schedule:

Categories	Project Total	Prior Budget	2020	2021	2022	2023	2024	2025	Costs After
Trans from W/S Cash Fund	3,501,000	940,000	585,000	385,000	385,000	402,000	402,000	402,000	
Total Cost:	3,501,000	940,000	585,000	385,000	385,000	402,000	402,000	402,000	

